

Appl. No. 09/823,127
Amdt. Dated September 15, 2006
Reply to Final Office Action of June 15, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A network system, comprising:
a sending unit to transmit a first frame fragment, the first frame fragment including a first data segment extracted from a low priority frame and a first frame fragmentation control information appended to the end of the first data segment, the first frame fragmentation control information ~~includes~~ including at least one of (i) a first frame fragmentation indicator, (ii) a frame fragment sequence number specifying a sequential order number assigned to the first frame segment, and (iii) a channel number; and
a receiving unit to receive the first frame fragment transmitted by the sending unit.
2. (currently amended) The system of claim 1, wherein:
the sending unit to transmit a second frame fragment, the second frame fragment including a high priority frame and a second frame fragmentation control information appended to the end of the high priority frame; and
the receiving unit to receive the second frame fragment transmitted by the sending unit.
3. (currently amended) The system of claim 1, wherein:
the sending unit to transmit a third frame fragment, the third frame fragment including a second data segment extracted from the low priority frame and a third frame fragmentation control information appended to the end of the second data segment; and
the receiving unit to receive the third frame fragment transmitted by the sending unit.
4. (Previously Presented) The system of claim 3, wherein the first frame fragmentation control information includes the first frame fragmentation indicator and each of the second fragmentation control information and the third fragmentation control information includes the first frame fragmentation indicator.

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5. (Previously Presented) The system of claim 3, wherein the first frame fragmentation control information includes the frame fragment sequence number and each of the second fragmentation control information and the third fragmentation control information includes the frame fragment sequence number.

6. (Previously Presented) The system of claim 3, wherein the first frame fragmentation control information includes the channel number and each of the second fragmentation control information and the third fragmentation control information includes the channel number.

7. (Original) The system of claim 3, wherein each of the first frame fragmentation control information, the second fragmentation control information, and the third fragmentation control information includes a last frame fragment indicator.

8. (Previously Presented) The system of claim 1, wherein the first frame fragmentation control information includes an extension indicator.

9. (currently amended) A sending unit, comprising:
a frame fragment generator to generate frame fragments from a frame, each of the frame fragments including a payload data and a frame fragmentation control information appended to the end of the payload data to enable the frame fragments to be reassembled into the frame, the frame fragmentation control information ~~includes~~ including at least two of (i) a first frame fragmentation indicator, (ii) a frame fragment sequence number, and (iii) a channel number; and
a data transmitter to transmit the frame fragments generated by the frame fragment generator.

10. (Original) The sending unit of claim 9, wherein the payload data includes an entire frame.

11. (Previously Presented) The sending unit of claim 9, wherein the payload data includes a data segment extracted from the frame.

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12. (Previously Presented) The sending unit of claim 9, wherein the frame fragmentation control information includes the first frame fragment indicator to specify whether a frame fragment is a first fragment generated from the frame.

13. (Previously Presented) The sending unit of claim 9, wherein the frame fragmentation control information includes the frame fragment sequence number to specify a sequential order number assigned to each frame fragment generated from the frame.

14. (currently amended) The sending unit of claim 9, wherein the frame fragmentation control information includes the channel number to indicate ~~the~~ a logical communication channel to which a frame fragment is designated.

15. (Previously Presented) The sending unit of claim 9, wherein the frame fragmentation control information includes an extension indicator that, when set, identifies that additional fields are added to the frame fragmentation control information.

16. (currently amended) A machine-readable medium comprising instructions which, when executed by a machine, cause the machine to perform operations comprising:

a first code segment to generate frame fragments from a frame, each of the frame fragments including a payload data and a frame fragmentation control information appended to the end of the payload data to enable the frame fragments to be reassembled into the frame, the frame fragmentation control information ~~includes~~ including a first frame fragmentation indicator to specify whether a frame fragment is a first fragment generated from the frame; and

a second code segment to transmit the frame fragments generated by the frame fragment generator.

17. (Previously Presented) The machine-readable medium of claim 16, wherein the frame fragmentation control information further includes:

a last frame fragment indicator to specify whether the frame fragment is a last fragment generated from the frame.

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18. (Previously Presented) The machine-readable medium of claim 16, wherein the frame fragmentation control information includes a frame fragment sequence number to specify a sequential order number assigned to each frame fragment generated from the frame.

19. (Previously Presented) The machine-readable medium of claim 16, wherein the frame fragmentation control information includes a channel number to indicate the logical communication channel to which the frame fragment is designated.

20. (Original) The machine-readable medium of claim 16, wherein the frame fragmentation control information includes an extension indicator used to add fields to the frame fragmentation control information.

21. (currently amended) A method, comprising:

transmitting a first frame fragment including a first data segment extracted from a low priority frame and a first frame fragmentation control information appended to the end of the first data segment, the first frame fragmentation control information including a frame fragment sequence number to specify a sequential order number assigned to the first frame fragment generated from the low priority frame;

transmitting a second frame fragment after transmitting the first frame fragment, the second frame fragment including a high priority frame; and

transmitting a third frame fragment after transmitting the second frame fragment, the third frame fragment including a second data segment extracted from the low priority frame.

22. (currently amended) The method of claim 21, wherein transmitting the second frame fragment includes appending a second frame fragmentation control information to the end of the high priority frame.

23. (currently amended) The method of claim 22, wherein transmitting the third frame fragment includes appending a third frame fragmentation control information to the end of the second data segment extracted from the low priority frame.

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24. (Original) The method of claim 23, further includes inserting a first frame fragmentation indicator in each of the first fragmentation control information, the second fragmentation control information, and the third fragmentation control information.

25. (Previously Presented) The method of claim 23, further includes inserting a frame fragment sequence number in each of the second fragmentation control information and the third fragmentation control information.

26. (Original) The method of claim 23, further includes inserting a channel number in each of the first fragmentation control information, the second fragmentation control information, and the third fragmentation control information.

27. (Original) The method of claim 23, further includes inserting a last frame fragment indicator in each of the first fragmentation control information, the second fragmentation control information, and the third fragmentation control information.

28. (Original) The method of claim 23, further includes inserting an extension indicator in each of the first fragmentation control information, the second fragmentation control information, and the third fragmentation control information.